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U. S. Department of Agriculture - Forest Service  
CENTRAL STATES FOREST EXPERIMENT STATION  
In Cooperation With  
Ohio Agricultural Experiment Station  
OHIO DIVISION OF FORESTRY

Technical Note 18.

August 15, 1940.

VOLUME TABLE  $\frac{1}{4}$   
for  
BLACK WALNUT  
(*Juglans nigra*)  
Stark County, Ohio

Merchantable Stem to a Variable Top Diameter INTERNATIONAL Rule ( $\frac{1}{4}$ " Kerf)

Diameter breast high outside bark (inches)	Volume of stem in 12.3-foot logs to merchantable height						Basis in trees
	1 log	2 logs	3 logs	4 logs	5 logs	6 logs	
	Bd.ft.	Bd.ft.	Bd.ft.	Bd.ft.	Bd.ft.	Bd.ft.	Number
8	6	-	-	-	-	-	1
9	9	21	-	-	-	-	1
10	13	30	46	-	-	-	4
11	17	39	61	-	-	-	9
12	22	49	77	104	-	-	8
13	27	61	95	129	-	-	7
14	33	72	114	155	-	-	6
15	38	83	133	180	230	279	5
16	44	95	150	204	264	317	7
17	-	107	169	230	294	354	3
18	-	120	187	255	325	391	7
19	-	132	205	280	356	430	4
20	-	145	225	307	390	468	4
21	-	157	244	334	422	509	1
22	-	171	264	360	455	549	2
23	-	183	284	386	489	590	2
24	-	-	305	413	522	632	-
25	-	-	325	442	560	676	-
26	-	-	347	472	596	722	-
27	-	-	372	506	638	773	-
28	-	-	399	542	684	826	1
29	-	-	429	582	735	889	2
30	-	-	463	630	796	962	1
31	-	-	511	692	875	1057	-
Basis in trees-- number	14	18	23	12	6	2	75

Trees climbed and measured by personnel of Work Projects Administration Official Project 65-1-42-166 - "The Ohio Woodland Survey." Measurements taken at 16-foot log lengths above a 1.0-foot stump height. Scaled as 16-foot logs, and additional shorter top logs; top sections less than 8 feet in length scaled as fractions of an 8-foot log. Table prepared in 1940, by the equation method. Coefficient of multiple correlation (R) = 0.985. Standard error of estimate, 82.2 to 121.6 percent. Block shows limits of basic data.

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